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Gunter Fuhr

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EXAMINER

ALI, MOHAMMAD M

ART UNIT

PAPER NUMBER

3744

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@crbcp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/532,017	<b>Applicant(s)</b> FUHR ET AL.	
	<b>Examiner</b> MOHAMMAD M. ALI	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 21-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1--13, 15-19 and 20 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Smollett et al (3,292,424) in view of Brooks (US 20030076203). Smollett et al disclose a cryo storage device 22, and at least one data storage device 69 (The examiner considering relay as a data store device to store data when to operate the relay), and at least one sample receptacle device 77 with at least one sample chamber (the duct portion dipped in the oil sample 72) for the uptake of suspension sample, the at least one sample chamber 82 being connected to at least one data storage device 69 through fluid contained in the fluid chamber 15 and having elongated hollow shaped that extends from an inlet end located neat the bottom 80 of the container 70 over a predetermined length to an outlet end having a wider diameter 99, wherein one sample chamber 82 is attached to the at least one data storage device 69

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in a flexible ( the conduit 82 being coiled is flexible and data storage device 69 is connected to 82 through fluid by a flexible electric cable 68 and movably and hanging manner. For claim 16 for mechanical separation see Fig.2 where conduit 84 has been mechanically separated from its continuity. Smollett disclose et al disclose the invention substantially as claimed as stated above except specifically a relay with data storage. Brooks teaches the use of a relay 10 with memory modules display system in a control system (see Para [0029]) for the purpose of storing data for efficient functioning of an electrical relay control system.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cryostogare device of Smollett et al in view of Brooks such that a memory module could be provided in order to store data in relay control system to efficient functioning of the relay control system.

Regarding claims 1 and 12 the above disclosure of Smollett et al and Brooks disclose the limitations of claims 1 and 12.

Regarding claim 2, Smollett et al disclose that the at least one sample chamber (72/82 is a hollow cylinder, see Fig. 1) is a hollow cylinder, a hollow cone, a pipe, a tube, or a hollow needle.

Regarding claim 3, Smollett et al disclose that the at least one sample chamber (82) consists of a flexible, bendable material.

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Regarding claim 4, Smollett et al disclose that the at least one sample chamber (72) is provided with at least one of a sensor (39), a temperature sensor, and cooling surfaces.

Regarding claim 5, Smollett et al disclose that the at least one data storage (69) device comprises at least one data storage with a housing, the housing being connected with the at least one sample receptacle (15/82) device.

Regarding claim 6 for multiplicity of data store is an obvious duplication of single data storage. However, Brooks disclose a memory storage module (Para [0029]) which invariably stores data (multiple data). Therefore, Smollett et al in view of Brooks disclose the limitations of claim 6.

There is no patentable significance unless a new and unexpected result is produced. See MPEP 2144.03 (VI). Since it has been held that mere duplication of the essential working parts of a device involves only routine skill of art. *St. Regis Paper Co. V. Bemis Co.*, 193 USPQ 8.

Regarding claim 7, Smollett et al disclose that a cross-sectional dimension of the at least one sample chamber (99) varies along a length of the at least one sample chamber, so that at least one sub-chamber with a cross-sectional dimension that is larger than cross-sectional dimensions of the inlet and outlet openings is provided. See Fig. 1.

Regarding claim 8, Smollett et al disclose that the at least one sample receptacle device (11) comprises a plurality of sample chambers (13, 15) connected with one another at their exterior walls, so that an integral, flexible sample chamber block is provided. See Fig. 1.

Regarding labeling for claim 9 is a known feature in the art would be obvious implementation with Smollett et al.

Regarding claim 10, Smollett et al disclose that an attachment device (66) is provided, with which the at least one sample chamber (15/82) is attached to the at least one data storage device (69) through the electric lead (68).

Regarding claim 11, Smollett et al disclose that the attachment device (66) comprises strips arranged individually or as a bundle, each of the strips having a first and a second end with a sample chamber (15) attached to the first end and the at least one data storage device (69) attached to the second end. into a low-temperature state by positioning at least a part of the cryostorage device in a cryo-medium.

Regarding claim 13, Smollett et al disclose that the uptaking comprises dipping the at least one sample chamber (99) with an inlet end in a sample reservoir and transferring of the suspension sample as a result of a reduced pressure

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applied at a corresponding outlet end or of capillary forces. The inlet end of chamber (99) being narrower than the chamber (99), the pressure of samples after entering into the chamber (99) having wider space drops the pressure of the sample.

Regarding claim 15, Smollett et al disclose that at least one partial sample is detached from the at least one sample chamber (99/90) in the low-temperature state by mechanical separation (by pump 103).

Regarding claim 16, Smollett et al disclose that during the mechanical separation a local heating (local heating is being provided by bleed valve 107 by allowing comparatively high temperature bleed air which is not cooled by the cooling system of Smollett et al as shown in Fig. 1) of the respective sample chamber in a vicinity of the at least one partial sample that is to be separated or a separation at an attachment device between the respective sample chamber and the data storage device occurs. See Fig. 1.

Regarding claim 17 for sealing sample is also a known feature in the art and would be an obvious implementation with Smollett et al in view of Brooks. However, the metering pumps (86/103) are provided with some kind of sealing device or valve arrangement so that the pumps can meter according to the direction of a control device.

Regarding claims 18, 19 and 20, Smollett et al disclose to reduce up to 25 degree F as shown in column 2 of table of a test result. However, Smollett et al do not

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disclose a reduced temperature less than 100 degree C. It is known that a cryogenic apparatus is able to reduce temperature of an environment less than -100 degree C. Therefore, it would be an obvious choice of an ordinary skill to choose a reduced temperature of less than -100 degree temperature. It is also mentioned that creation of cryogenic temperature below 100 degree C is well known in the art. For evidentiary reference, see US Patent 4,739,622 to Smith, column 6, line 53.

In another way choosing a specific cooling value like less -100 C is simply discovering an optimum value of a result effective variable.

It is further mentioned that it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smollett et al in view of Brooks as applied to claim 12 above and further in view of Takiue (20020007256 A1). Smollett et al disclose the invention substantially as claimed as stated above except measured data and reference data. Takiue teaches the use of a measured- data process center 32 comprises a data-storage 33, an analyzer 34. The data-storage 33 stores previously reference data in order to analyze the measured data. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device and method of Smollett et al and Brooks in view of Takiue such that a data-storage capable of storing measured-data and reference data and analyze the measured-data with reference-data in order to obtain a desired analysis of the data.



***Response to Arguments***

Applicant's arguments, see remarks, filed 05/19/10, with respect to the rejected claims have been fully considered and are partially persuasive. The rejection of 02/19/10 has been withdrawn. Applicant's arguments, see remarks, filed 05/19/10, with respect to the rejection(s) of claim(s) 1-20 under 103 rejections have been fully considered and are partially persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of new art. However, for further clarification,

Applicant's arguments filed 05/19/10 have been fully considered but they are not persuasive.

The Applicants argue that Smollett et al do not disclose a data storage adapted to store a plurality of data; a sample chamber being directly attached to a data storage device; and the sample chamber being attached to the data storage device in a flexible movably manner.

The Examiner disagrees.

Smollett et al do disclose a relay which is capable of storing plurality of data. In addition Brooks discloses a relay 10 with memory storage module (see Para [00] which is capable of storing plurality of data.

Sample chamber of Smollett et al is connected to data storage device (relay of Smollett et al). Directly attached means directly connected. However, the rejection is obvious type, in case the Applicants consider that the sample chamber of Smollett et al

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is indirectly connected with the relay/data storage, Smollett et al obviously meet the claimed invention.

As Smollett et al disclose that the data storage device/relay 69 is connected with an electrical cable 68 which a known feature of flexible and movable, Smollett et al disclose that the sample chamber being attached to the data storage device in a flexible movably manner.

The Applicants argue that the thermal regulator switch 66 that is sensing the temperature of the chamber 15 is clearly not sensing the temperature of the duct cable 82 or of the sample 72.

The examiner disagrees. Above argument is contradictory because while sensing a temperature in a chamber containing the other element being cause of the temperature is not persuasive. The sensor which is capable to sense a temperature in a chamber, the sensor is also capable to sense the temperature of any element in the chamber including the temperature of the duct 82.

The Applicants further argue that Smollett does not disclose a sample chamber being directly attached to the data storage device.

The Examiner disagrees. The chamber 15 is directly attached with duct 82 and the data storage chamber 69 is directly attached with chamber 15. Therefore, Smollett et al either anticipates or obviously teach that the data storage 69 is directly attached with chamber 15 or duct 82.

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In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The Applicants further argue that Takiue does not teach at least one data memory chip adapted to store a plurality of data for claim 12 and 14.

The data memory chip is not the claimed subject matter of claims 12 and 14. It indicates from the above argument that the Applicants are arguing which not claiming.

Therefore, the rejections are ok. However, for allowing further scope the finality has been withdrawn and a non-final has been forwarded to make the claims in allowable form.

The Applicant argued that Smollett does not disclose a cry storage device comprising at least one data storage device including at least one data storage adapted to store a plurality of data under cryo conditions. The examiner disagrees. First the claims do not disclose such disclosure and though no claims disclose such element, Smollett et al., disclose a cryo storage device 22 and one data storage device 69. The examiner considers that Smollett et al's data storage stores plurality of data because it works on plurality of switches 66 and 63. The applicant further argued that the

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components are not adapted for storing the sample under cryogenic conditions, for example, at very low temperature under -50 degree C. The examiner again disagrees. No claim under 102 rejections discloses such element. Therefore, the argument is not valid for the 102 rejections. The container is sufficiently insulated to undergo a test requiring - 25 degree F which is equivalent to -30 degree C. As may seen in the Table in column 6. Therefore, it is obvious that the container is sufficiently insulated that it could withstand at any less temperature including – 50 degree C. Therefore, the argument is not correct. Therefore, the rejections are ok.

The Applicants request for amendment to claims to allowable form is appreciated and welcomed any time and can be discussed in a telephone interview.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD M. ALI whose telephone number is (571)272-4806. The examiner can normally be reached on Monday through Thursday from 8.30 am to 12 Noon and from 1 pm to 5.30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohammad M Ali/  
Primary Examiner, Art Unit 3744